

## AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A method of computing a contour comprising ~~the steps of:~~  
inputting a plurality of points, each input point being indicative of a predetermined landmark point in an image;  
deriving a preliminary contour based on the input points and a known average contour shape by applying a parametric model to transform the known average contour shape such that landmark points of the known average contour shape match corresponding input points; and  
deforming the preliminary contour to fit features identified in the image to obtain the computed contour.
2. **(Currently Amended)** A method according to claim 1, wherein ~~the~~ a total number of ~~inputted~~ the input points is fewer than ~~the~~ a number of points needed to define ~~the~~ a shape of the computed contour.
3. **(Currently Amended)** A method according to claim 1, wherein ~~the~~ a number of degrees of freedom defined by the ~~inputted input~~ points is fewer than ~~the~~ a number of degrees of freedom needed to define ~~the~~ a shape of the computed contour.
4. **(Currently Amended)** A method according to claim 1, wherein the known average contour shape is obtained ~~using~~ from a database of contours derived from previous images.
5. **(Cancelled)**
6. **(Currently Amended)** A method according to claim 5~~1~~, wherein ~~the deforming steps~~ said deforming operation comprises deforming the preliminary contour by applying the same parametric model ~~as in the deriving step.~~
7. **(Currently Amended)** A method according to claim 5~~1~~, wherein the parametric model is a deformation model derived from a statistical shape model constructed from a database of contours derived from previous images.

**8. (Currently Amended)** A method according to claim 1, wherein the contour represents ~~the~~a boundary of an item of interest in the image.

**9. (Previously Presented)** A method according to claim 1, wherein the image is an anatomical image.

**10. (Currently Amended)** A method according to claim 9, wherein the image is an image of ~~the~~a heart.

**11. (Currently Amended)** A method according to claim 10, wherein the image of the heart is a long-axis view of the heart.

**12. (Currently Amended)** A method according to claim 10, wherein the contour represents ~~the~~an endocardial boundary of ~~the~~a left ventricle of the heart.

**13. (Currently Amended)** A method according to claim 12, further comprising ~~the step of~~ calculating ~~the~~a volume of the left ventricle.

**14. (Currently Amended)** A method according to claim 1, wherein the predetermined landmark points in the image comprise:

~~the~~a root of ~~the~~a left mitral valve leaflet;<sub>i</sub>

~~the~~an apex of the left ventricle;<sub>i</sub> and

~~the~~a root of ~~the~~a right mitral valve leaflet.

**15. (Currently Amended)** A method according to claim 1, wherein ~~the~~a number of ~~inputted~~the input points is exactly three.

**16. (Currently Amended)** A method according to claim 1, wherein the image is ~~an image~~ created using a modality selected from the group consisting of ultrasound, nuclear medicine, X-

ray and magnetic resonance imaging.

**17. (Currently Amended)** A method of computing the motion of a contour, for a temporal sequence of images of a subject, said method comprising ~~the steps of:~~

computing the contour for one image of the sequence ~~according to the method of anyone of images according to the method of~~ of the preceding claims claim 1;

using the computed contour as a new preliminary contour for a further image in the sequence of images;

deforming the new preliminary contour to fit features identified in the further image to obtain ~~the a~~ a computed contour for the further image; and

repeating ~~the using and deforming steps~~ said using and deforming operations to obtain a computed contour for each image in the sequence of images.

**18. (Currently Amended)** A method according to claim 17, wherein the computed contours represent ~~the an~~ an endocardial boundary of ~~the a~~ a left ventricle of ~~the a~~ a heart, said method further comprising ~~the steps of:~~

calculating left ventricle volumes from the computed contours; and

using the calculated volumes to calculate at least one of the stroke volume and ejection fraction of the heart.

**19. (Currently Amended)** A computer system comprising:

a data processor;

a data storage ~~means,~~ device;

an input device; and

a display, wherein the data processor ~~being is~~ is adapted to process data in accordance with an executable program stored in ~~the said~~ a data storage ~~means,~~ device, ~~wherein and~~ wherein the executable program is adapted to cause a computer to execute at least the method of ~~any one of the preceding claims claim 1~~ on data representing the an image displayed on the said display and using the plurality of points indicative of predetermined landmark points in the image displayed on said display input with the said input device.

**20. (Currently Amended)** A computer program recorded on a computer-readable recording medium comprising program code ~~means for executing on~~causing a computer to execute at least the method of claim 1.

**21. (Currently Amended)** A ~~computer program product carrying~~computer-readable recording medium having recorded therein the computer program of claim 20.

**22. (Currently Amended)** A method according to claim 11, wherein the contour represents ~~the~~an endocardial boundary of ~~the~~a left ventricle of the heart.

**23. (Currently Amended)** A method according to claim 22, further comprising ~~the step of~~ calculating ~~the~~a volume of the left ventricle.